

ABSTRACT

Cost is reduced and reliability is improved with a CSP type semiconductor device. A glass substrate which works as a supporting plate is bonded through an adhesive to a first surface of a semiconductor wafer on which first wirings are formed. Thickness of the semiconductor wafer is reduced by back-grinding the semiconductor wafer on a second surface of the semiconductor wafer which is opposite to the first surface of the semiconductor wafer. The semiconductor wafer is wet-etched to remove bumps and dips on the second surface of the semiconductor wafer caused during the back-grinding. Then the second surface of the semiconductor wafer is etched to form a tapered groove. The semiconductor wafer is wet-etched to reduce bumps and dips caused by the etching and round a corner of the groove. The wet-etching improves coverage of insulation film, wiring and protection film and enhances yield and reliability of the semiconductor device.